

Koch, Kristine

From: Koch, Kristine
Sent: Thursday, May 29, 2014 12:19 PM
Cc: PARRETT Kevin
Subject: RE: Portland Harbor - Action Items From May 8 FS Technical Meeting

Tom – Here are EPA’s responses to your comments.

1. Benthic Risk Areas (“comprehensive benthic approach”): The write up provided by Burt states:

- a. Interpretation of Empirical Results: One hit rule for Hyalella survival, Chironomus biomass and survival at Level 2 and 3 effect levels and the use of the Hyalella biomass endpoint as potentially unacceptable as long as there is another line of evidence also indicating potentially unacceptable risk. Can this line of evidence come from TZW or tissue residue as well or just the other toxicity endpoints?

It can come from any other line of evidence, not just toxicity.

- b. Identification of Areas Posing Potentially Unacceptable Benthic Toxicity (benthic models): DEQ would like clarification that EPA is proposing to only use PEC mean quotients to define areas posing potentially unacceptable benthic toxicity risk. The text specifically states that PECs line up better than PEL quotients. This point is debatable when comparing Map 6-11 (LRM pooled model), 6-12 (FMP individual endpoint models), 6-20 (PEC quotients), and 6-21 (PEL quotients). The PEL quotients appear to line up better with the site specific models than PEC quotients. Mean quotients of the FPM (Map 6-17) appear to under predict toxicity by a large margin (even Level III hits are diminished), and is not an appropriate pooled model for the FPM.

While DEQ is supportive of the toxicity testing as the benchmark for unacceptable risk, there is some value in considering the areas identified by the site specific models. While DEQ does not advocate the use of FPM sediment quality values (SQVs) as PRGs, this model or the LRM may be the better at identifying these initial areas. Map 6-12 from the BERA provides a good identification of areas based on a range of multiple endpoints from level 2 and 3 exceedances. DEQ does not recommend using FPM mean quotients (shown on Map 6-17). Additionally, the LRM provides probability of toxicity based on model of all endpoints combined (pooled model) in Map 6-11.

PELs did not line up with other lines of evidence at the site. EPA is not clear what DEQ is referred to as site specific models. PECs did line up better with the toxicity lines of evidence. EPA agrees that FPM SQVs should not be used as PRGs and PRGs have not been developed based on this approach. EPA also agrees with not using FPM mean quotients and the LRM provides probability of toxicity based on model of all endpoints combined. EPA is further investigating this issue and it would be helpful if DEQ would provide a justification to support this position.

- c. EPAs concurrence with other comprehensive benthic approach criteria are unclear – please clarify.
- TZW exceedance areas were only delineated when HQs >100 **No, EPA did not concur with this.**
 - Two or more adjacent sampling locations indicated potentially unacceptable risk was required for both empirical results, predictive models, and empirical or predictive bioaccumulation **No, EPA did not concur with this.**
 - Some lines of evidence were considered weak and not used (TBT and metals, tissue residues) **EPA is not clear what is meant here, but any COC with an HQ>1 is used.**
 - It must be verified that bullet #2 indicating significant toxicity as a function of biomass and growth on page 6 of Appendix P of the FS is a typo. **EPA is correcting all deficiencies in the draft FS.** DEQ notes that biomass and growth are presented in the bioassay interpretation provided in the BERA, Attachment 6. **EPA agrees.**

Kristine Koch
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From: GAINER Tom [mailto:GAINER.Tom@deq.state.or.us]

Sent: Thursday, May 15, 2014 2:00 PM

To: Koch, Kristine; LIVERMAN Alex; Allen, Elizabeth; Audie Huber (audiehuber@ctuir.com); Bob Dexter; Brian Cunnigham (cunnigham@gorge.net); callie@ridolfi.com; Conley, Alanna; Erin Madden (erin.madden@gmail.com); Fuentes, Rene; Gail Fricano (gfricano@indecon.com); Genevieve Angle (Genevieve.Angle@noaa.gov); Holly Partridge (Holly.Partridge@grandronde.org); JD Williams (jd@williamsjohnsonlaw.com); PETERSON Jenn L; Jeremy_Buck@fws.gov; Julie Weis (jweis@hk-law.com); Matt Johnson (matt@williamsjohnsonlaw.com); MCCLINCY Matt; Michael.karnosh@grandronde.org; poulsen.mike@deq.state.or.us; Muza, Richard; rdelvecchio@indecon.com; DelVecchio; Robert.Neely@noaa.gov; rose@yakamafish-nsn.gov; Ryan Sudbury (Ryan.Sudbury@grandronde.org); Sheldrake, Sean; Shephard, Burt; Susan J. Penoyar (PenoyarSJ@cdm.com); Todd King (KingTW@cdmsmith.com); tomd@ctsi.nsn.us

Cc: PARRETT Kevin

Subject: RE: Portland Harbor - Action Items From May 8 FS Technical Meeting

Kristine-

DEQ is unclear how the Revised Comprehensive Benthic Risk Areas (April 2014) were mapped and therefore cannot accept or comment on the new figures. In other words: What is EPA's new comprehensive benthic approach (list of criteria/factors)? DEQ has not received a response to our question on this topic in my email dated 4/24/14 (and repeated below).

7. Benthic Risk Areas ("comprehensive benthic approach"): The write up provided by Burt states:

- a. Interpretation of Empirical Results: One hit rule for Hyalella survival, Chironomus biomass and survival at Level 2 and 3 effect levels and the use of the Hyalella biomass endpoint as potentially unacceptable as long as there is another line of evidence also indicating potentially unacceptable risk. Can this line of evidence come from TZW or tissue residue as well or just the other toxicity endpoints?
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- c. EPAs concurrence with other comprehensive benthic approach criteria are unclear – please clarify.
 - i. TZW exceedance areas were only delineated when HQs >100
 - ii. Two or more adjacent sampling locations indicated potentially unacceptable risk was required for both empirical results, predictive models, and empirical or predictive bioaccumulation
 - iii. Some lines of evidence were considered weak and not used (TBT and metals, tissue residues)
 - iv. It must be verified that bullet #2 indicating significant toxicity as a function of biomass and growth on page 6 of Appendix P of the FS is a typo. DEQ notes that biomass and growth are presented in the bioassay interpretation provided in the BERA, Attachment 6.

Thanks-
Tom

From: Koch, Kristine [<mailto:Koch.Kristine@epa.gov>]

Sent: Thursday, May 15, 2014 12:32 PM

To: LIVERMAN Alex; Allen, Elizabeth; Audie Huber (audiehuber@ctuir.com); Bob Dexter; Brian Cunningham (cunninghame@gorge.net); callie@ridolfi.com; Conley, Alanna; Erin Madden (erin.madden@gmail.com); Fuentes, Rene; Gail Fricano (gfricano@indecon.com); Genevieve Angle (Genevieve.Angle@noaa.gov); Holly Partridge (Holly.Partridge@grandronde.org); JD Williams (jd@williamsjohnsonlaw.com); PETERSON Jenn L; Jeremy_Buck@fws.gov; Julie Weis (jweis@hk-law.com); Matt Johnson (matt@williamsjohnsonlaw.com); MCCLINCY Matt; Michael.karnosh@grandronde.org; POULSEN Mike; Muza, Richard; rdelvecchio@indecon.com DelVecchio; Robert.Neely@noaa.gov; rose@yakamafish-nsn.gov; Ryan Sudbury (Ryan.Sudbury@grandronde.org); Sheldrake, Sean; Shephard, Burt; Susan J. Penoyar (PenoyarSJ@cdm.com); Todd King (KingTW@cdmsmith.com); tomd@ctsi.nsn.us; GAINER Tom

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If there are no objections to the new benthic layer, we are going to proceed with incorporating it into the FS analysis (new cookie layer).

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From: Koch, Kristine

Sent: Thursday, May 15, 2014 10:22 AM

To: Alex Liverman (liverman.alex@deq.state.or.us); Allen, Elizabeth (allen.elizabeth@epa.gov); Audie Huber (audiehuber@ctuir.com); Bob Dexter; Brian Cunningham (cunninghame@gorge.net); callie@ridolfi.com; Conley, Alanna (conley.alanna@epa.gov); Erin Madden (erin.madden@gmail.com); Fuentes, Rene (fuentes.rene@epa.gov); Gail Fricano (gfricano@indecon.com); Genevieve Angle (Genevieve.Angle@noaa.gov); Holly Partridge (Holly.Partridge@grandronde.org); JD Williams (jd@williamsjohnsonlaw.com); Jennifer Peterson (peterson.jennifer@deq.state.or.us); Jeremy Buck (jeremy_buck@fws.gov); Julie Weis (jweis@hk-law.com); Matt

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Subject: FW: Portland Harbor - Action Items From May 8 FS Technical Meeting

All – Here is a comparison of the footprints of the LWG's RALs vs. EPA's RALs using the LWGs interpolation method.

Kristine Koch
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From: Jennifer Woronets [<mailto:jworonets@anchoragea.com>]
Sent: Wednesday, May 14, 2014 4:18 PM
To: Koch, Kristine
Cc: Jennifer Woronets; Carl Stivers; Amanda Shellenberger; Jim McKenna (jim.mckenna@verdantllc.com); Patty Dost; Bob Wyatt; Sheldrake, Sean; King, Todd W.
Subject: FW: Portland Harbor - Action Items From May 8 FS Technical Meeting

Kristine,

Please see below and attached from Amanda.

Let us know if you have any questions.

Thank you,
Jen Woronets ☺
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From: Amanda Shellenberger
Sent: Wednesday, May 14, 2014 4:05 PM
To: Jennifer Woronets
Cc: Carl Stivers
Subject: RE: Portland Harbor - Action Items From May 8 FS Technical Meeting

Kristine and Team –

Per action item #2 under the SMA-related action items, the attached maps show a comparison of EPA RALs versus LWG RALs using LWG mapping techniques. Also, per action item #3, we are sending the EPA RAL chemicals GIS layers (mapped using LWG mapping techniques) to Todd King so that he can develop a map comparing LWG mapping techniques to EPA's mapping techniques.

SMA's

1. LWG Action Item – Prepare simple RAL maps that shows all the draft FS SMA's without CDFs present.
 - o Sent last week
2. LWG Action Item - Compare mapping of EPA RAL chemicals to LWG RAL chemicals maps using LWG mapping techniques.
 - o Attached
3. LWG Action Item - Take the EPA RAL chemicals map layer from previous map and send that layer to Todd. He will develop a map comparing LWG mapping techniques to EPA's mapping techniques.
 - o Sent to Todd in separate email
4. LWG Action Item – Provide existing subSMA pixel map comparison from April 24th meeting.
 - o Sent last week.

Amanda Shellenberger, P.E.

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